

RPA Field Simulations: Dilemma-Training for Legal and Ethical Decision-Making



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**“The Transformation of War through Information Technology
and its Impact on Ethics and Law of Armed Conflicts”**

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BACKGROUND

- 4th year cadets in **Behavioral Sciences & Leadership** all take the *Capstone Experience Course* (CEC)
- CEC offers several different kinds of projects, one consists of RPA Field Simulation
- Two phases in RPA Field Simulation – classroom phase and field phase
- Purpose: link *theoretical understanding/moral reasoning* with *rapid, informed decision-making/moral behavior*



IRREGULAR WARFARE

- U.S. dominates conventional warfare, but irregular warfare falls under *Things That We'd Rather Avoid* (TTWRA, Two-Rah)
- Still, currently involved in “sovereignty-challenged regions”
- Insurgencies/Counterinsurgencies (COIN) both require the support and cooperation of the people
- This often takes modern militaries out of their preferred skill-sets
 - We examine for in the case of RPAs



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INSURGENCIES, MODERN MILITARIES ...

- struggle between *nonruling group* and ruling authorities ...
 - who uses political resources and violence ...
 - to destroy, reformulate, or sustain the basis of legitimate politics for that area
- the embattled government sometimes secures/attracts intervention by outside, superior military (foreign intervention)

Insurgency Outcomes by Foreign Intervention (Outside Powers)

	Direct Intervention	Indirect Intervention	No Intervention
Govt wins	19.0%	25.0%	36.7%
Mixed	38.0%	25.0%	16.7%
Govt loses	23.8%	50.0%	26.7%
Ongoing	19.0%	---	20.0%
	100.0%	100.0%	100.0%
n =	21	8	60

WWII

COIN AND CONVENTIONAL MILITARIES

Why the poor showing when outside military is involved?

Their preferred use of kinetic action (killing people, breaking things) tends to ...

- 1) alienate/anger population,
- 2) turn them against govt/COIN forces, and
- 3) increase their willingness to tolerate insurgent groups*



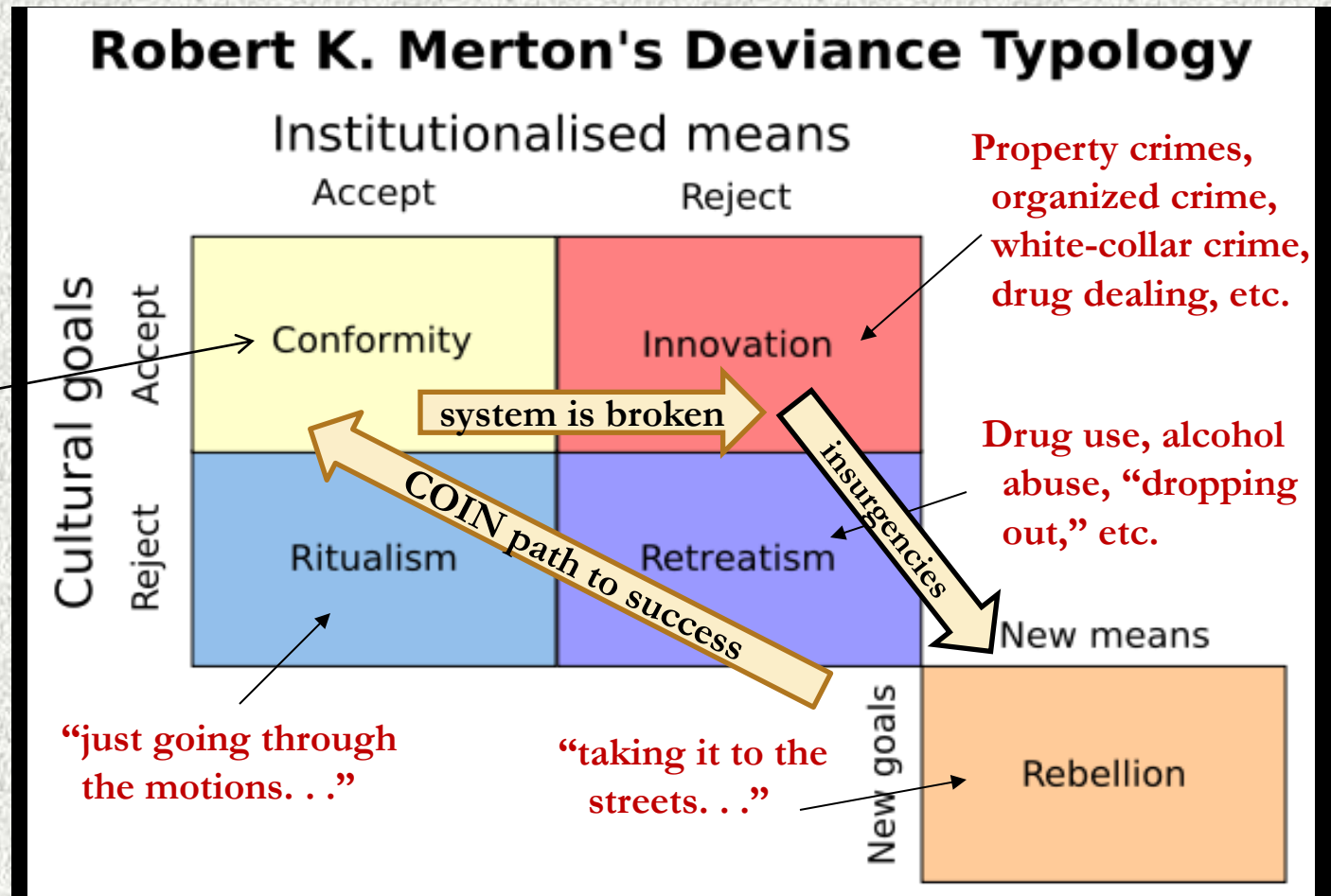
Hence, a dilemma: heavy focus on *kinetic actions/force protection* usually has many *counterproductive, unintended consequences*

* Insurgents face similar dilemma – their use of violence too always has potential to turn population against them.

MERTON'S STRUCTURAL STRAIN THEORY



“yea! the system works,
I’m ‘all in’ ...”

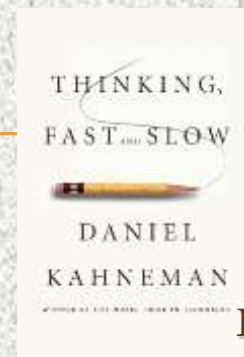


Note: Usually very difficult to defeat **insurgencies** militarily; helpful to restore or create conditions that motivate **conformity**

FAST AND SLOW THINKING

Fast Thinking

operates by default, uses simplifying heuristics (stereotypes) to quickly recognize, infer, conclude useful, essential but makes some systematic errors



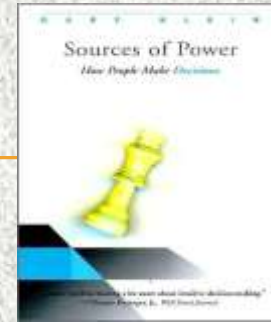
**Long-time
Professor of
Psychology,
Princeton University**

Slow Thinking

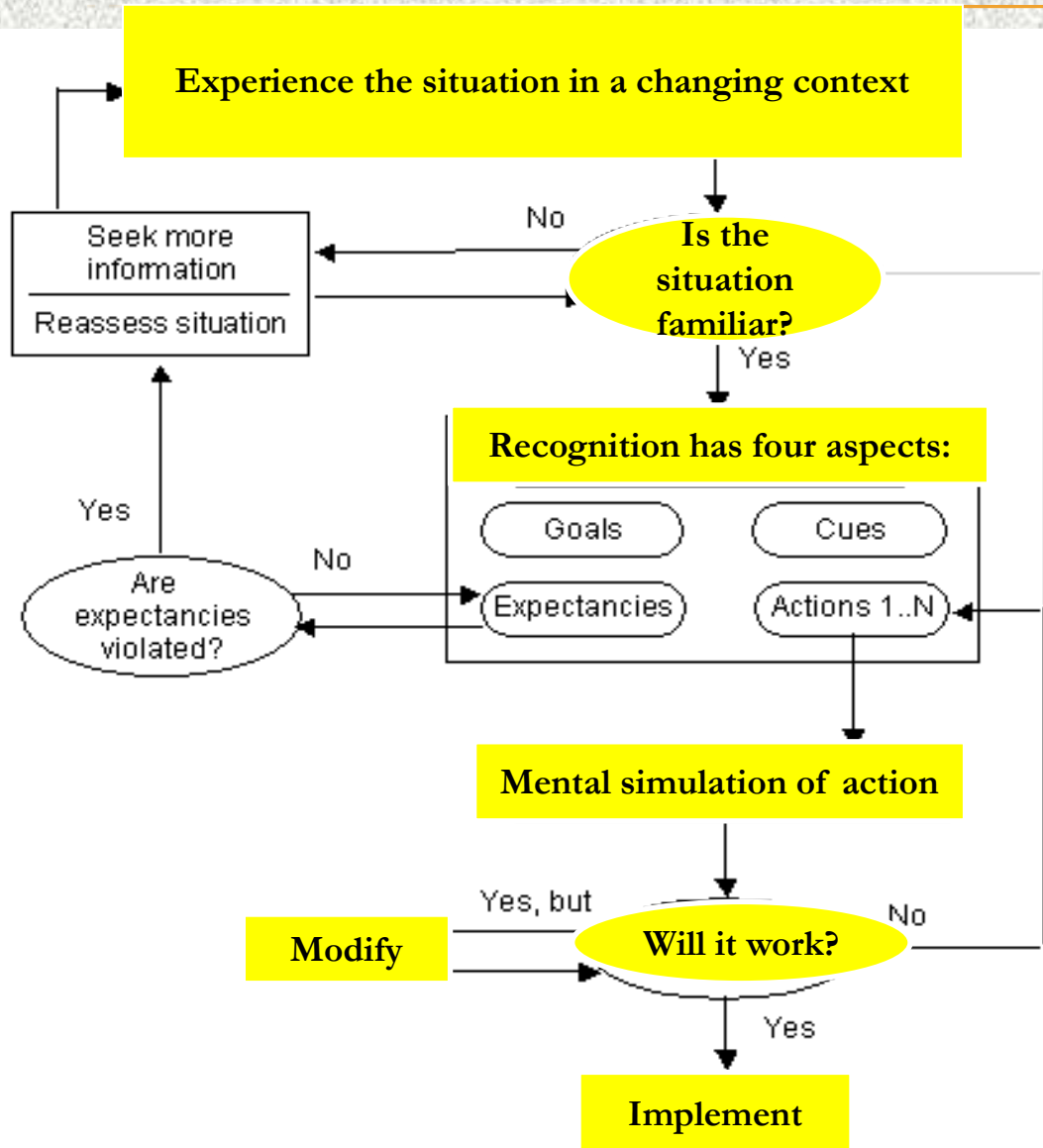
works more slowly, requires greater effort
given adequate time, relevant information, produces judgments/decisions with fewer errors

Problem: do not always have time and sufficient evidence –
decisions often must be made quickly w/partial information

RECOGNITION-PRIMED DECISION-MAKING (RPDM)



Gary Klein
Cognitive
Psychologist



RPDM

depicts how fire commanders made decisions under duress

it is a **FAST** thinking process heavily dependent upon **prior experience**,

i.e., recognition dependent on having “seen” this situation before

prior experience may be gained through **SLOW** thinking plus associated “dilemma training”

MORAL REASONING/BEHAVIOR



Psychologist,
formerly at
Swiss Military
Academy

Military-Leader Responsibility

requires commitment to behaving ethically while accomplishing missions legally

Evaluated ethics curriculum at Swiss Military Academy

- courses increased sensitivity to moral issues and respect for human dignity
- but, had very little effect on ability to make sound moral decisions in operational settings

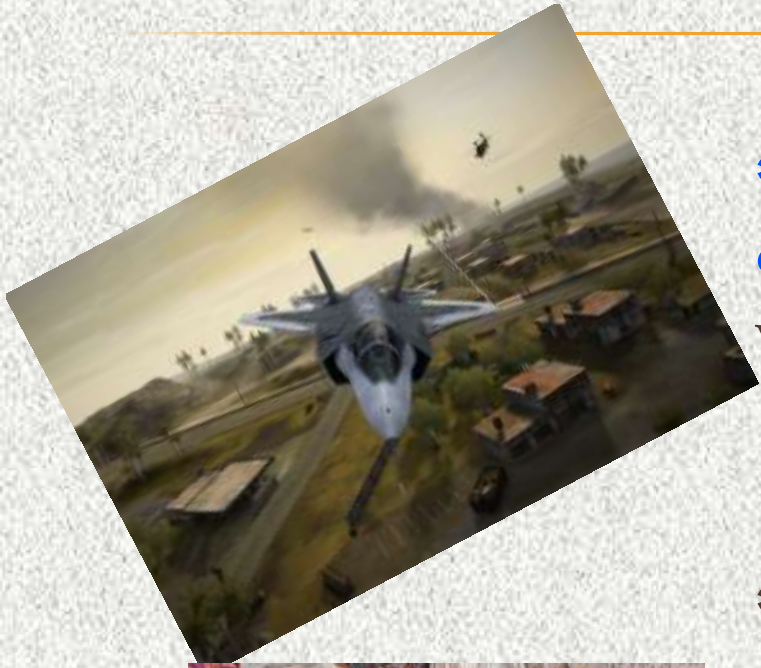
Problem: recommendation here to is for “dilemma training”

PURPOSE OF SIMULATION AT USAFA

- ✓ bridge gap between behavioral-science theories and their applications in operational settings
- ✓ Bridge gap between moral reasoning and moral behavior
- ✓ impart a realistic understanding of *RPA-in-COIN*'s practical/legal/ethical dimensions through enacting “real-life” scenarios



WHAT DOES A GOOD SCENARIO DO?



- * Contributes to understanding the content/issues of COIN operations in which RPAs are employed

- * Creates dilemmas by juxtaposing
 - a) demands to maximize kinetic action/force protection, and
 - b) necessity to minimize “collateral damage”

i.e., creates “wicked dilemmas”

EXERCISE SET UP



- Airmanship-RPA program agreed to provide Ravens (RQ-11) in Jack's Valley (field area) for exercise
- 5 cadets assigned to Mission Control Element (MCE Team)
- 9 cadets assigned to Jack's-Valley Ground (JVG) Team
- 4 cadets assigned to video recording team

MCE TEAM

Read articles on COIN, use of RPAs in operational settings, and international law/LOAC considerations



* cadets assigned roles/personalities:

- **Officer-in-Charge**

former F-16 pilot, acknowledges need to comply with LOAC but impatient with ROEs

- **Offensive-Operations-Chief**

former F-15 WSO, well-versed in LOAC but always on lookout for “sweet targets”

- **Senior Intelligence Duty Officer**

experienced intel officer, careful, deliberate, knows Afghan culture

- **Military Information Support Officer**

grad of 17-month PsyOp course at Ft Bragg, not timid about speaking up

- **Ground-Liaison Officer**

experienced, calm; not afraid to bring up issues



J-V GROUND TEAM

JVG Team read articles on COIN, theories underlying Dilemma Training

- * each cadet wrote a scenario juxtaposing kinetic-action/force-protection and collateral-damage issues
- * 3 composite scenarios were developed incorporating best features, i.e., “ethically challenging” moments: wicked dilemmas
- * cadets were assigned to roles within scenarios; dressed for the part, rehearsed



RQ-11 Raven circles overhead, recording action on the ground; its video-feed is transmitted to the Mission Control Element (MCE) in a building approximately 2 miles away



This is a **Troops-in-Contact** scenario: legal requirements to “shoot”

- 1) effective fire (patrol must be in danger of wounding or death)
- 2) there must be positive identification of who/where fire is from
- 3) any response must be proportional, minimize collateral damage

“WICKED” SCENARIO #1

Car with raised hood is parked on side of road near village with two men, one peering into engine, second praying in road. American patrol comes down road. As it approaches car, IED goes off, possibly injuring one of patrol. Two men by car flee into nearby trees ...

MCE: men fleeing from area of IED, shoot/no shoot?
(MCE decides “No Shoot”)

After several minutes, American patrol proceeds toward village. 50 meters from village, patrol receives fire from from direction of village but patrol leader cannot pinpoint where exactly fire is coming from. After several minutes, patrol leader identifies a building, believed to be a school, as the source of the fire (automatic weapons fire heard in background over radio). Patrol leader cannot verify if children are in school building or not ...

MCE: school PID’d as source of gunfire at American patrol; shoot/no shoot?
(MCE decides “No Shoot”)

After several minutes, patrol leader reports 2 patrol members are wounded but leader seems disoriented, does not specifically request close-in fire support (automatic weapons fire heard in back-ground over radio) ...

MCE: has evidence of “effective fire”; shoot/no shoot?
(MCE undecided)

After several minutes, patrol leader radios, “I don’t give a damn who’s in building, I want it destroyed!” (sounds of automatic weapons fire heard in background over radio) ...

MCE: has specific fire request from ground commander; shoot/no shoot?
(MCE decides “Shoot”)

Patrol leader reports several kids run out of building. Patrol enters village to investigate.

End of Scenario #1, Execution time: 30 -35 minutes

REFLECTIONS – J-V GROUND TEAM

* “I felt we actually presented [the MCE] with challenging scenarios that really tested their decision-making ... And, we were able to ad-lib some things that made it even tougher.”



* “[Acting out these scenarios,] I discovered how hard it is [for the MCE] to make the right choices about what to do. After learning the COIN mindset, transferring those theories to actions when the pressure is on makes doing COIN seem almost counter-intuitive to what you want to do, just kill bad guys.”

* “This is a new skillset that really has to be specifically practiced in order to be used in a combat environment with all the stressors that are surrounding you.”

* “Several of us commented during the exercise *‘this is extremely relevant’* and *‘possibly some of the only really applicable training’* we’ve had in four years at the Academy.”

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REFLECTIONS – MCE

* “As SIDO, I was quick to strongly disfavor taking out the school. ...it would make sense that during the middle of the day, children would be...in the schoolhouse. Regardless, the OIC made the decision to “shoot.” This decision was wildly unpopular with me and the MISO officer. Tensions rose to the point of loud yelling across the AOC (Air Operations Center) to try and convince the OIC that shooting was not worth it.... But [she] was firm in her decision.”



* “ROEs can provide guidance, but we learned that training and experience are needed to Sharpen the necessary decision-making skills.”

“[All this discussion] caused panic in the MCE, Considering that friendlies might be dying...as we deliberated on what to do.”

* “When villagers discover American forces...destroyed an entire school full of children, the public may begin to hate any foreign occupiers of their land. The relatives of these children will not only begin to hate American forces, but they are also likely to...pick up arms against us. ...I [said] to the OIC, the possibility of creating hundreds of *accidental guerillas* was extremely high, ...was too risky for both the possibility of collateral damage and productivity in winning the war. ...From a counterinsurgency perspective, bombing a school full of children would be one of the worst scenarios to be in.” (MISO-O)”

REFLECTIONS – MCE

* “I was constantly talking with the patrol leader to try and get a handle on the situation. I would relay the messages to the OIC and be tasked with asking another question. This was difficult because the patrol leader was frantic and yelling and would not directly answer my questions. ...I do agree with the decision to shoot because we were justified based on our decision-tree and the ROEs (rules of engagement).”
(GLO)

* The OIC surveyed the room to get advice. Because of my assigned personalaty (forward-Leaning) and role (Weapons Officer), I was pushing to ‘shoot’. We had satisfied our decision-tree so it seemed like a ‘sweet target’ to me.”



* [OIC]: *“I believe I made the right decision. It was TIC with confirmed effective fire, PID, and no confirmed report of women and children present. It was not the time to quibble.”*

AND, ONE CONCLUDED:

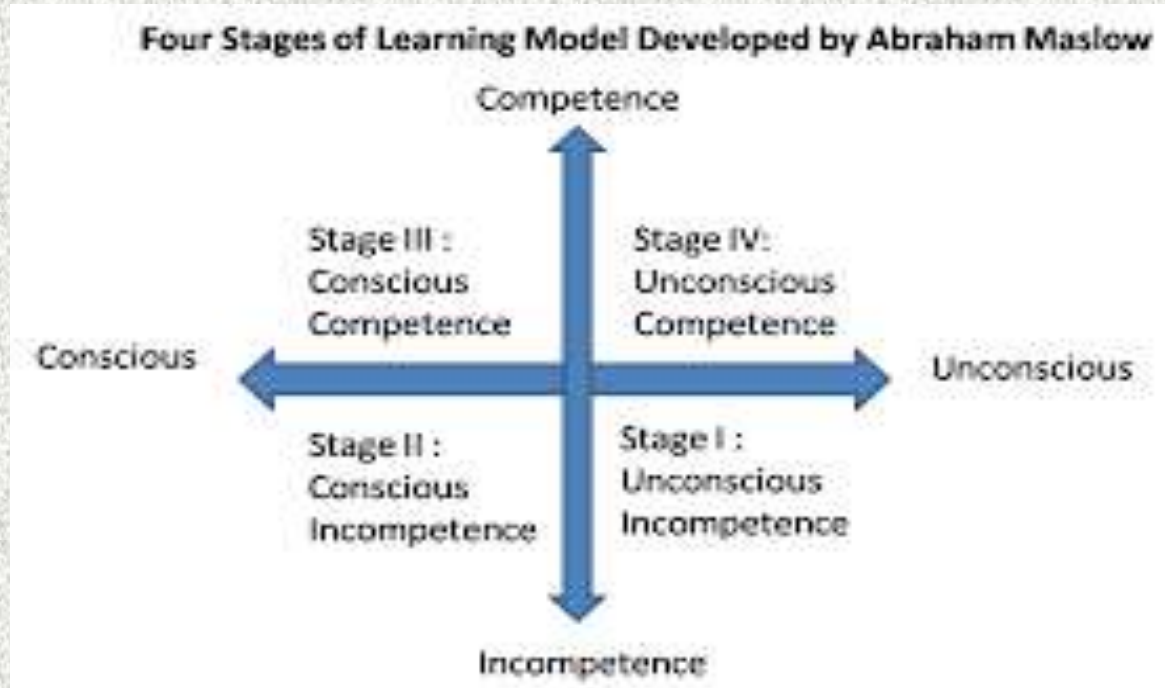
“In everyday life we have the ability to make split-second decisions to reliably help us avoid otherwise fatal situations... In my own life...the best example is skydiving.

Skydiving is a sport of seconds and milliseconds. Every time a jumper deploys his parachute, he is less than twenty seconds away from death should something fail. Each skydive is full of...situations which demand good decision-making and in which death is the consequence for failure. Ground training is very important, however there still exists the incredible challenge of translating the ground, slow-thinking training into the air where fast-thinking takes over.

Similar to the combat world, it is commonly known that a person can never know how she is going to react in the sky until she is actually there. That is part of the beauty of the sport....”

AS PART OF FIELD SIMULATION

- Move cadets from unconsciously incompetent to consciously incompetent (only 2 of 4 stages)



- Moral reasoning vs. moral behavior
 - Research suggests that ability to discuss moral issues in the classroom does not correlate well with ability to apply principles in real situations

CONCLUSIONS/AFTER-ACTION REVIEW

- Classroom presentations and discussions
 - “Rumble-strips”
- Summaries of scenarios, decision-making
- Lessons learned
- Movement from “unconsciously incompetent” toward “consciously competent”